ＰＡＴENT COOPERATION TREＡＹ

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

United States Patent and Trademark Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 08 December 1998 (08.12.98)	
International application No. PCT/US97/17033	**Applicant's or agent's file reference** RCA 88482
International filing date (day/month/year) 23 September 1997 (23.09.97)	**Priority date** (day/month/year) 14 April 1997 (14.04.97)

Applicant

HAILEY, James, Edwin et al

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1. The designated Office is hereby notified of its election made:

   [X] in the demand filed with the International Preliminary Examining Authority on:

   06 November 1998 (06.11.98)

   [ ] in a notice effecting later election filed with the International Bureau on:

2. The election   [X] was

   [ ] was not

   made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

Authorized officer

Nicola Wolff

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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference RCA 88482	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US97/17033	International filing date *(day/month/year)* 23/09/1997	Priority date *(day/month/year)* 14/04/1997

International Patent Classification (IPC) or national classification and IPC
H04N7/173

Applicant

THOMSON CONSUMER ELECTRONICS, INC. et al.

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 9 sheets.

3. This report contains indications relating to the following items:

   I   ☒   Basis of the report
   II   ☐   Priority
   III   ☐   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   IV   ☐   Lack of unity of invention
   V   ☒   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations suporting such statement
   VI   ☒   Certain documents cited
   VII ☒   Certain defects in the international application
   VIII ☐   Certain observations on the international application

Date of submission of the demand 06/11/1998	Date of completion of this report 1 6.07.89.
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. (+49-89) 2399-0 Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer Noll, B Telephone No. (+49-89) 2399 8700

Form PCT/IPEA/409 (cover sheet) (January 1994)

INTERNATIONAL-PRELIMINARY EXAMINATION REPORT

International application No. **PCT/US97/17033**

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1,3-30	as originally filed		
2,2a	as received on	22/03/1999 with letter of	18/03/1999

Claims, No.:

1-26	as received on	22/03/1999 with letter of	18/03/1999

Drawings, sheets:

1/9-9/9	as originally filed

2. The amendments have resulted in the cancellation of:

☐ the description,   pages:
☐ the claims,   Nos.:
☐ the drawings,   sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-26
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-26
Industrial applicability (IA)	Yes:	Claims	1-26
	No:	Claims	

2. Citations and explanations

   see separate sheet

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

   and / or

2. Non-written disclosures (Rule 70.9)

   see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

   see separate sheet

To section V:

With regard to the method of claim 1 the document WO-A-97 13368 (hereinafter re-
ferred to as D1) discloses a method of forming a television schedule guide in a tv de-
coder system allowing a user to select a function. Television schedule guide informa-
tion is received from at least one source (page 10, lines 13-23). Access data from a
memory is retrieved which enables initiation of communication between the decoder
and an external device in response to a user's request (page 12, line 37 to page 13,
line 4; page 11, line 37 to page 12, line 19). Page 12, lines 2-5 as well as the example
shown in figure 15A - 15C imply that program map information has been generated and
associates a selectable menu option ("Messages" in figure 15) with access data en-
abling initiation of communication between the decoder and the external device.

The only difference between the method according to present claim 1 and that de-
scribed in D1 is that, in the former, program map information is generated in the de-
coder whereas D1 is silent about where the program map information is generated.
From the entire context it appears that the program guide data received from a remote
database already includes mapping information.

A person skilled in the art of graphics-oriented user surfaces, which include electronic
program guides, is well aware of the advantages and disadvantages of generating an
electronic guide locally or remotely. Generating it locally (as it is usually the case in a
graphic-based user surface of a computer operating system) increases the flexibility of
the system but requires fairly highly developed computing resources which makes the
device more expensive in the past. Since costs are a crucial point in consumer elec-
tronics a skilled person was lead to prefer the cheaper instead of the more flexible solu-
tion . Since the costs of computing facilities have recently substantially decreased con-
sumer devices are more and more equipped with advanced computing systems. Con-
fronted to this situation a skilled person would also be encouraged to make use of the
new computing power of a consumer device and would envisage to use it for locally
generating a program guide, including the mapping information, in order to achieve
higher flexibility. Therefore, the method of claim 1 is not based on an inventive step.

The features of claims 2 and 3 are known from D1, see figure 15 and corresponding
parts of the description. The features of claims 4 to 6 are obvious from D1, see pas-
sages cited above and page 34, lines 6-22. The feature of claim 7 is known from D1,

see page 11, line 37 to page 12, line 19 for a code of a VTR and page 34, lines 6-22 for a code of an Internet connection. The feature of claim 8 is obvious from figure 17D. The feature of claim 9 is likewise known from D1, see passages cited above. The feature of claim 10 is obvious from D1, see page 13, lines 5-7. The features of claims 11 and 12 are likewise known from D1, see passages mentioned above.

Independent claims 13 and 26 differ from claim 1 only in the chosen wording but are substantially identical in the technical content. Therefore, the objection against claim 1 also hold for claims 13 and 26.

Dependent claims 14-24 correspond to claims 10, 2-9, 11 and 12 respectively. Therefore, the above objections hold for claims 14-24 for the same reasons. The feature of claim 25 does not exceed the normal competence of a person skilled in the art.

The above objections could also be based on the article by B. PROFFIT: "INTERCAST BRINGS THE WEB TO TV" in PC MAGAZINE, 21 January 1997, pages 203-204.

To section VI:
The document WO-A-97 28499 filed 31.1.97 and published 7.8.97 claims a priority of 2.2.96. Its content is considered as relevant with the present claims. Neither its priority nor that of the present application have been checked.

To section VII:
Reference signs in parentheses should be inserted in the claims to increase their intelligibility, Rule 6.2(b) PCT. This applies to both the preamble and characterising portion.

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presented by the need to devise a User interface for such a system that supports complex User interactive tasks whilst providing a simple command interface suitable for the general public. A PC/TV system User interface, for example, should allow a User to
5 view a selected program and permit User operation of functions such as Email, telephone, Internet access, fax and video-phone functions. Such applications require communication between a PC/TV unit and a variety of both remote sources e.g. a satellite service provider, and local sources e.g. a DVD storage device.
10 Further, a PC/TV needs to process and decode data in different data formats from different devices and display received data to the User. These problems are addressed by a system according to the present invention.

15   *Summary of the Invention*

            The inventors have hereby recognized that a Program Guide type of User interface advantageously provides a simple, easy to use interface for User operation of functions such as Email,
20 telephone, Internet access, fax, home control, and video-phone functions. The use of a Program Guide for such functions also advantageously provides a single User interface for User operation of multiple devices and associated functions.
            The inventors have further recognized that it is
25 desirable for a video decoder system to be capable of generating and maintaining a database of information to support User selected functions. Such a database provides a program map that associates program guide menu functions with required communication protocols and access data involved in data transfer
30 between a PC/TV unit and a variety of both local and remote information sources.
            A disclosed video decoder system provides a Program Guide User interface for User operation of communication and control functions. A method for forming a program guide allowing
35 a User to select a function involves receiving program guide information for display from at least one source. The program

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CLAIMS

1. In a video decoder system, a method for forming a program guide allowing a User to select a function, comprising the
5   steps of:
a) receiving program guide information for display from at least one source, said program guide information including User selectable menu options;
b) retrieving access data from memory, said access
1 0 data enabling initiation of communication between said decoder and a device external to said video decoder in response to User selection of a displayed program guide menu option;
c) generating program map information for associating a displayed User selectable menu option with access data enabling
1 5 initiation of communication between said decoder and said external device; and
d) formatting said program guide for display.

2. A method according to claim 1, including the step of:
2 0   generating program map information for associating different displayed User selectable menu options with different communication links.

3. A method according to claim 2, including the step of:
2 5   associating different access data with corresponding different communication links.

4. A method according to claim 1, including the step of:
generating program map information for associating a
3 0 displayed User selectable menu option with both request access data and response access data.

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5. A method according to claim 4, wherein

said request access data includes one of a) a telephone/fax number, b) an Internet identifier or address code and c) conditional access data; and

5   said response access data includes at least one of a) a data identifier, b) a channel number, and c) a transponder number.

6. A method according to claim 4, including the step of:

10   generating program map information for associating different displayed User selectable menu options with different address representative codes corresponding to the addresses of information sources.

15   7. A method according to claim 1, including the step of:

generating program map information for associating different displayed User selectable menu options with different address representative codes corresponding to the addresses of at least two sources selected from: a) a storage source; b) a satellite

20 broadcast source; c) a terrestrial broadcast source; d) a cable broadcast source; e) a computer source; f) a radio transmission source and g) a source accessed via telephone lines.

8. A method according to claim 1, including the step of:

25   generating program map information for associating different displayed User selectable menu options with different conditional access information for determining access to programs based upon User entitlement.

30   9. A method according to claim 1, including the step of:

generating program map information for associating different displayed User selectable menu options with different physical communication network parameters.

10. A method according to claim 1, including the step of:

deriving said access data from said received program guide information.

11. A method according to claim 1, including the step of:

generating program map information for associating different displayed User selectable menu options with different address representative codes corresponding to the addresses of information sources provided to said decoder by a User.

12. A method according to claim 11, wherein said address representative codes include at least one of a) telephone/fax number representative information, and b) Internet address representative information.

13. In a video decoder system, a method for forming a program guide allowing a User to select a function, comprising the steps of:

a) receiving program guide information from at least one source;

b) generating a menu option for display in a displayed program guide, said menu option permitting a User to initiate communication between said video decoder and a device external to said video decoder;

c) generating program map information associating said menu option with access data enabling establishment of communication between said decoder and said external device;

d) incorporating program guide information and said menu option in a program guide; and

e) formatting said program guide for display.

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14. A method according to claim 13, including the step of:

deriving said access data from said program guide information.

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15. A method according to claim 13, including the step of:

generating program map information for associating different displayed User selectable menu options with different
10 communication links.

16. A method according to claim 15, including the step of:

associating different access data with corresponding
15 different communication links.

17. A method according to claim 13, including the step of:

generating program map information for associating a
20 displayed User selectable menu option with both request access data and response access data.

18. A method according to claim 17, wherein
said request access data includes one of a) a
25 telephone/fax number, b) an Internet identifier or address code and c) conditional access data; and
said response access data includes at least one of a) a data identifier, b) a channel number, and c) a transponder number.
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19. A method according to claim 17, including the step of:

generating program map information for associating different displayed User selectable menu options with different
35 address representative codes corresponding to the addresses of information sources.

20. A method according to claim 13, including the step of:

generating program map information for associating different displayed User selectable menu options with different address representative codes corresponding to the addresses of at least two sources selected from: a) a storage source; b) a satellite broadcast source; c) a terrestrial broadcast source; d) a cable broadcast source; e) a computer source; f) a radio transmission source and g) a source accessed via telephone lines.

21. A method according to claim 13, including the step of:

generating program map information for associating different displayed User selectable menu options with different conditional access information for determining access to programs based upon User entitlement.

22. A method according to claim 13, including the step of:

generating program map information for associating different displayed User selectable menu options with different physical communication network parameters.

23. A method according to claim 13, including the step of:

generating program map information for associating different displayed User selectable menu options with different address representative codes corresponding to the addresses of information sources provided to said decoder by a User.

24. A method according to claim 23, wherein said address representative codes include at least one of a) telephone/fax number representative information, and b) Internet address representative information.

25. A method according to claim 13, including the step of:

generating program map information for associating
5 different packet identifiers (PIDs) with program guide information from different sources.

26. In a video decoder system, a method for forming a program guide allowing a User to select a function, comprising the
10 steps of:

a) receiving program guide information from at least one source;

b) generating a menu option for display in a displayed program guide, said menu option permitting a User to initiate
15 communication between said video decoder and a device external to said video decoder;

c) generating program map information associating said menu option with a communication protocol and access data enabling establishment of communication between said decoder
20 and said external device;

d) incorporating program guide information and said menu option in a program guide; and

e) formatting said program guide for display.